Title (en)

TESTING OF CURVED X-RAY GRATINGS

Title (de)

PRÜFUNG VON GEKRÜMMTEN RÖNTGENGITTERN

Title (fr)

ESSAI DE RÉSEAUX DE DIFFRACTION DE RAYONS X INCURVÉS

Publication

EP 3502674 A1 20190626 (EN)

Application

EP 17208415 A 20171219

Priority

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Abstract (en)

The present invention relates to a method, and a corresponding device, for testing a radius of curvature and/or for detecting inhomogeneities of a curved X-ray grating for a grating-based X-ray imaging device. The method comprises generating a beam of light diverging from a source point, propagating along a main optical axis and having a line-shaped beam profile. The method comprises reflecting the beam off a concave reflective surface of the grating,. A principal axis of the concave reflective surface coincides with the main optical axis and the source point is at a predetermined distance from a point where the main optical axis intersects the concave reflective surface. The method comprises determining whether a projection of the reflected beam in a plane at or near the source point is present outside a central region around the source point, in which an absence of this projection outside the central region indicates that a radius of curvature of the concave reflective surface corresponds to the predetermined distance and/or that the reflective surface is substantially homogeneously curved along a curve formed by the beam impinging on the concave reflective surface.

IPC 8 full level

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CPC (source: EP US)

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Citation (search report)

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